

**REMARKS**

This Amendment and Response is filed in reply to the Office action dated June 15, 2007. Claims 1-3, 8, 14 and 18 are amended and no claims are canceled. Accordingly, after entry of this Amendment and Response, claims 1-22 remain pending.

*I. Claim Rejections Under 35 U.S.C. § 102*

Claims 1-22 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,000,044 to Chrysos et al. (hereinafter "Chrysos"). An anticipation rejection requires that each and every claim limitation be disclosed in a single prior art reference.

Initially, the rejections of independent claims 1, 8, 14 and 18 are addressed. Independent claim 1 includes the limitation "reporting the sampling information to the particular thread when the sampling information includes an event of interest." That is, sampling information for a sampled instruction is reported to the particular thread when the sampling information includes an event of interest. Chrysos discloses reporting of all sampling information irrespective of whether or not the sampled instruction contains sampling information of interest to the particular thread. See *Chrysos*, column 6, lines 60-65. As such, the Assignee respectfully submits that Chrysos does not disclose all the elements of claim 1 and is thus inadequate to anticipate claim 1, as amended. Accordingly, independent claim 1 is patentable over Chrysos, believed to be in form for allowance and such indication is respectfully requested.

Independent claim 8 includes the limitation "decrementing the candidate counter when all events for the instruction have occurred and the instruction corresponds to a desired sampled thread." Independent claim 14 includes a similar limitation "decrementing the candidate counter when all events for the instruction have occurred and when the instruction includes events of interest." The Office action alleges Chrysos teaches these limitations. See *Office action*, pages 3 and 5, citing *Chrysos*, column 15, lines 64-67. The Assignee respectfully disagrees. Chrysos teaches decrementing or incrementing a counter each time an instruction is fetched. When the counter underflows or overflows, the current instruction is selected for sampling. See *Chrysos*, column 14 line 64 to column 15, line 4. That is, in Chrysos, the counter is decremented (or incremented) each time an instruction is fetched prior to sampling the instruction. In contrast, claim 8 requires decrementing the counter when all events for the instruction have occurred and when the sampled instruction corresponds to a desired sampled thread. Claim 14 requires decrementing the counter when all events for the instruction have occurred and when the instruction includes events of interest. Insofar as Chrysos does not disclose all the limitations of independent claims 8 and 14, it is inadequate to anticipate independent claims 8 and 14. Accordingly, independent

claims 8 and 14 are patentable over Chrysos, believed to be in form for allowance and such indication is respectfully requested.

Independent claim 18, as amended, includes the limitation “wherein the sampling register logic, sample filtering and counting logic is replicated on a per thread basis.” Chrysos discloses sample filtering and counting logic that is common to all threads. See *Chrysos*, column 11, line 58 to column 12, line 4. Insofar as Chrysos does not disclose all the limitations of claim 18, it is inadequate to anticipate independent claim 18. Accordingly, independent claim 18 is patentable over Chrysos, believed to be in form for allowance and such indication is respectfully requested.

The remaining rejected claims 2-7, 9- 13, 15-17 and 19-22 all depend, either directly or indirectly, from one of independent claims 1, 8, 14 and 18. Accordingly, these dependent claims are themselves patentable over Chrysos for at least the above state reasons, and such indication is respectfully requested. This statement is made without reference to or waiving the independent bases of patentability within each dependent claim.

## II. Conclusion

The Applicant thanks the Examiner for his thorough review of the application. The Applicant respectfully submits the present application, as amended, is in condition for allowance and respectfully requests the issuance of a Notice of Allowability as soon as practicable.

This Amendment is submitted contemporaneously with a petition for a three-month extension of time in accordance with 37 C.F.R. § 1.136(a). Accordingly, please charge Deposit Account No. 04-1415 in the amount of \$1050.00, for a three-month extension of time fee. The Applicant believes no further fees or petitions are required. However, if any such petitions or fees are necessary, please consider this a request therefor and authorization to charge Deposit Account No. 04-1415 accordingly.

If the Examiner should require any additional information or amendment, please contact the undersigned attorney.

Dated: Dec. 5, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Gregory P. Durbin', written over a horizontal line.

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